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AUTHOR Sanders, George; Dennis, William A.
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ABSTRACT

This brief evaluation of area vocational schools and programs and their impact on students and communities of Appalachia notes: (1) 20 to 30 percent of Appalachian high school students are being reached by current programs, (2) Enrollment in individual programs has increased from 50 to several hundred percent, (3) The dropout rate for most schools has declined since the opening of a vocational-technical center, (4) Area vocational schools help to attract new industry into the Appalachian Region, and (5) Prevocational programs are beginning to emerge in school systems. Other points covered include adult education, program administration, faculty, guidance, and youth organizations. A major recommendation is that greater efforts should be made to expand prevocational and exploratory education programs. (JS)

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THE IMPACT OF NEW AREA VOCATIONAL SCHOOLS ON THE APPALACHIAN REGION

Prepared By
Bureau of Adult, Vocational, and Technical Education
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George Sanders, Senior Program Officer, Facilities and Equipment Section,
William A. Dennis, Program Officer, Facilities and Equipment Section,
Ancillary Services Branch

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Introduction

The Appalachian Regional Commission (ARC) was formed six years ago when governors from 13 Appalachian States formed a partnership with the Federal Government in an attempt to cure the economic ills of an area of our Nation in which one-tenth of our population reside. With action and proposals originating from the local level, projects were soon started on new highway systems, hospitals, airports, libraries, sewage and water treatment plants, and vocational-technical schools. Approximately one-fourth ($104.7 million) of the $401.2 million in Federal Appalachian funds appropriated through June 1970 for nonhighway programs has gone into the construction of 261 vocational education facilities. These funds supplement the $46.3 million allocated for construction under Part B of the Vocational Education Amendments of 1968 and the $179.1 million of State and local funds.

This investment in the development of human resources in a depressed area impinges upon our Nation's newly established internal priorities in varying degrees. Obviously, human resources cannot be developed without having some positive effect upon economic and community development. Their impact upon the socio-economic development can no doubt be adequately assessed through a collective or individual study of the activities initiated through ARC support. One viewpoint of the impact is obtained through observation of the catalytic action initiated through the development of area vocational-technical schools.

Through the Eyes of the Student

It is estimated that 20 to 30 percent of the secondary school students are being reached by vocational education programs currently in operation within the region. Enrollments in individual programs have increased from 50 to several hundred percent. Visits to forty area vocational schools revealed a most positive impact upon the students' attitudes and skill development which will eventually have positive effects on Appalachian society. These schools have been in operation for an average of only 2 years, consequently their full impact is yet to be realized.

Most students view their new vocational programs as an opportunity to, at last, study in an area commensurate with their interests and to develop skills that will afford economic independence and, at the same time, allow them to fit into the mainstream of society. Without their realizing it, positive attitudinal changes occur over a period of time as a result of their renewed interest in school subject matter and interaction between students and teachers. Students somewhat mediocre in academic studies are given a chance to excel in vocational studies. And they are taking advantage of their chance.

For example, one student at Hibriten High School, Lenoir, N.C. won a State award for excellent work in graphics. Another student, a sophomore from Starmount High School, Yadkin County, won the State mechanical drafting contest sponsored by the Trade and Industrial Division of the State Department of Education. Countless others excel in their respective areas in one way or another. Many students, for example, place high in automobile trouble shooting contests and in cosmetology competition. Almost all achieve high degrees of competency in their respective skills and graduate successfully from high school to the world of work.

Excellence cannot be achieved if the framework leading to competent achievement does not exist. Vocational education is providing this framework. A majority of students in the Appalachian Region are considered to be economically disadvantaged, coming from low income families; a few are from broken homes or have alcoholic parents. These students lack the social competencies one might expect from the average adolescent. When they arrive at the vocational complex, they find a faculty and administration that take a personal interest in their well-being. They begin immediately to help these students blossom forth with self-confidence through skill development and development of a positive outlook on life. Students are capable of working on their own and always seem busy.

If this is the effect of catalytic action by the school upon the disadvantaged, we can also visualize the effect this system will have upon some of the physically and mentally handicapped. One prime example exists in the Area Vocational-Technical School in Knoxville, Tenn. Thirty-eight students from the nearby institute for the deaf and dumb are enrolled full-time at this school. They have been absorbed into the regular vocational programs. The faculty rose to the challenge of learning sign language in order to communicate with these handicapped students. These students were well accepted by the normal students, and the two groups are working well together. This is but one example of actions taken to help the handicapped in the Appalachian area.

Onsite Visitations

Onsite visits to 40 schools enabled staff members to review and examine: (1) the type and levels of instructional programs; (2) the expertise and and organization of teachers, administrators, and guidance personnel; (3) the contributions made by resource centers, youth organizations, and advisory committees; (4) the effectiveness of facilities and equipment; and (5) the reciprocal benefits mutually derived by the schools, the citizens, and the business-industrial community. While general observations were made in 40 schools, more specific information was accumulated from 26 of these.

Our focus on a sampling of 26 area vocational schools indicates an additional 16,000 students are able to benefit from vocational education programs. This averages to approximately 575 students per school.

Applying this figure to the 261 schools listed as operational at the close of FY 1970, we estimated that the vocational education community is serving an additional 150,000 youths. The majority of these schools have been in operation an average of only 2 years and have not yet reached capacity enrollment. It takes 3 years of operation for a school to realize full utilization. Even when capacity enrollment is achieved, the vocational programs will provide educational opportunity for only 20 to 30 percent of the secondary school population. This is indicative of the work remaining to be done if occupational education is to be provided for 50 to 60 percent of the students. The percentage of youth currently reached varies from state to state and localities within the state. Program availability may range from none in sparsely populated rural areas to better than 50 percent of the secondary student population in urban and suburban areas. Examples of the former exist in portions of northeastern Mississippi (Mississippi has been in the ARC program only since 1968 and, consequently, is not as far developed as other states), while a good example of the latter is located in Knox County, Tenn. States such as South Carolina, Maryland, Georgia, Ohio, and Virginia are nearing the saturation point as far as geographic coverage is concerned. The reason for this is that only comparatively small portions of these states lie within the designated Appalachian Region. Schools within these areas should now consider expansion of existing programs and development and implementation of new ones to meet the total vocational education needs of the people.

Survey of operational programs show their effect on the school district dropout rate. In general, most schools indicate that the dropout rate has declined since opening of a vocational-technical center. Typical of the statements regarding school dropouts is the one received from Marshall Technical School in Guntersville, Ala:

> "The overall dropout rate is lower now than before Marshall Technical School was constructed. A specific example is the 24-year-old man who dropped out of high school six years before. He started back to high school as an eleventh grader in order to attend Marshall Technical Center. He graduated from high school in May 1970. He is now attending Snead Junior College and working part time in the occupation for which he was trained. Many students make the statement that they would not be attending school if they could not come to Marshall Technical School."

It is somewhat expected that secondary vocational programs would effect a decrease in dropout rates at the 10th, 11th, and 12th grades. What is surprising is perhaps a unique situation occurring at Pickens Area Vocational-Technical School, Jasper, a post-secondary institution. Alert administrators at this school realized their post-secondary enrollment was not up to capacity, so they, in cooperation with local high schools, initiated a pilot program at the technical school for 11th and 12th graders. Seventy students are attending 2 hours per day. Some of these were potential dropouts until vocational education was

made available to them. Some adjustment was necessary on the part of the instructors who had never taught at the high school level before. They developed a new curriculum and attended an inservice training program enabling them to be quite effective in working with high school youth. The instructors indicated that these youth were very receptive to their new opportunities.

In addition to helping curb the overall dropout rate within a particular school district, the area vocational school itself is exhibiting remarkable holding power over the students that enter. Although, reasons for dropping out of vocational school are varied, most of those who do drop out are able to abtain and hold jobs as a result of their partial training. Most dropouts occur in the 8th, 9th, and 10th grades, prior to the time a majority of secondary vocational education programs are offered. This is perhaps indicative of the work we need to do in pre-vocational and exploratory education to keep students in school during these crucial years. Many who do drop out of school during early adolescence take advantage of post-secondary or adult programs later in life.

Prior to the opening of new vocational facilities in Appalachia, only a few programs were in operation. These early programs, for the most part, included agriculture and useful home economics. Metropolitan areas also had programs in the trade and industrial curriculum.

Now that the new and expanded programs are underway, the curriculum offerings are many and varied. Examples are:

Radio - TV Repair
Communications Media
TV-Studio
Graphic Arts
Drafting - Mechanical, Architectural
Machine Shop
Welding
Sheetmetal
Automotive Mechanics
Automotive Body and Fender
Agribusiness - Horticulture
Gainful Home Economics
    Sewing
    Child Care
Office Education
Cooking - Baking - Food Service
Nurses Aide - LPN - Medical Assistant
Dental Technician - Dental Assistant
Building Trades
    Carpentry
    Masonry
    Plumbing
    Electrician

Clothing Production & Services
Air Conditioning & Refrigeration
Cosmetology
Shoe Repair
Mine Maintenance
Textile Production and Fabrication
Appliance Repair
Electronics
Industrial Electricity

In addition, many students participated in cooperative education arrangements which can involve all curricula. The cooperative program arranges for the students to work part time in business and industry and, at the same time, earn credits toward a high school diploma or toward the completion of a post-secondary program.

Adult Programs

Classes for adults are held during afternoon and evening hours in regular courses and in courses requested by popular demand or by a particular segment of industry. The principal objective of the program is to supplement the knowledge and skills of adults who are employed in business and industry. The program also offers retraining for people who may have lost their jobs through automation or obsolescence. Preparatory education is also provided. Many institutions of this type offer basic education courses leading to a high school equivalency diploma. In short, all evening programs are available to persons desiring to learn a new skill, to upgrade or refine exixting skills, or to prepare for employment. Entrance requirements vary according to courses.

Industrial programs are designed to meet the training needs of industry and business. Many programs are short term in nature and are designed especially for the company or organization requesting it. Training may be carried on in the industrial plant or at the school.

To help meet the responsibilities of the total educational spectrum, some schools offer programs that are avocational in nature. While the impact of adult programs is difficult to determine because of the variety of the reasons for student attendance, it is interesting to note one program in Pennsylvania in which adults seem to have an extremely high interest. The Altoona AVTS opened with an adult evening enrollment of over 1,300. One program in particular - welding - operated 20 hours per day to satisfy the initial demand of both secondary and adult students.

Administration and Faculty

Two primary factors contributing to the success of vocational students are the dedicated teachers who wish to help someone in need and the progressive administrators who provide a creative and conducive

atmosphere in which the teachers can adequately function. In general, Appalachian teachers have a close affinity for the region in which they live and have a deepseated desire to contribute their talents toward the betterment of the area. All teachers interviewed during this survey seemed to possess the necessary skills and an innate ability to relate effectively to their students. Observed students were productively busy in class. Placement records and testimonials from employers strongly indicate that the teachers are doing an effective job of preparing students for employment. Another important point worth emphasizing is the ability of the instructors to instill positive attitudes within their students. Through skill development the students become more self-confident, which appears to change their outlook on life. They begin to participate in more community and school activities. Some eventually develop varying degrees of leadership capabilities. The personal relationship between teacher and student has stimulated this "blossoming out."

When the teachers first become certified to teach within a vocational system, they are energetic, enthusiastic, and effective. Where adequate inservice programs are instituted, these qualities are maintained and improved. Unfortunately some localities lack the funds to carry out proper inservice training. Several good systems within the Appalachian Region, however, maintain continuation of inservice training, utilizing teacher educators and also industrial and business personnel. Preservice sessions are held for all vocational education teachers before each school year.

Administrators provide another important facet toward serving the needs of vocational education students. State and local personnel in this capacity work with faculty and citizens alike to promote the best possible educational programs within the limits of their resources.

Much is done to promote articulation between vocational education teachers and their academic colleagues. All of the schools visited attempted in varying degrees to enable academic instructors within the school system to better understand vocational education. Through meetings, field trips, and joint committee action, many academic teachers are beginning to realize the advantages of vocational education. Greater understanding and cooperation seems to occur in comprehensive high schools where academic and vocational teachers have greater contact with one another. One comprehensive school was so designed that traffic patterns and class schedules necessitated all students to frequent parts of the plant that housed both vocational education and academic activities. More effort is required when separate campuses are involved. However, administrators, counselors, and teachers are making concerted efforts toward bridging the gap between vocational and academic educators in these situations.

Impact on Industry

The newly constructed vocational schools are strong factors in attracting new industry to the Appalachian Region. While the schools create a ready supply for the labor market and offer supplementary education to the already skilled employees, the new highway system provides access for industrial firms to other areas of the state(s) and the Nation. Most of the vocational schools are located within a short distance of major interchanges, thereby giving students ready access to the school from the outlying areas.

Besides attracting new firms, the schools are providing much needed services to existing industries and businesses. Better trained employees increase the efficiency and stability of the businesses. This, together with the influx of new industry, is steadily improving the economy of the region. Again, the full impact of this situation is yet to be felt. The catalytic action of the school becomes a major factor by attracting new industry, servicing both new and existing industries, and providing a well informed labor market through preparatory and supplementary education. The school also enables citizens, civic organizations, industrial personnel, and school administrators to work for the good of the community through the facilities and programs of the area vocational school. In effect, the vocational school has become the nucleus of a community center.

Garrett County provides an excellent example of how the schools improve the socio-economic conditions of the Appalachian Region. A major company, Bausch & Lomb Incorporated, relocated in this county; it will eventually employ 1,000 people, most of whom will be local citizens. It has been reported that less than 10 percent of the company personnel will be transferred to this new plant as administrators and superintendents. While many factors were no doubt weighed by company officials in selecting this section of the country, the status of the school system was one of the most important. A major portion of the work force will be products of this system and will assume varying degrees of responsibility for the productivity of this plant. The vocational-technical segment of this school system was no doubt scrutinized carefully for its ability to provide preparatory and supplemental training to prospective employees. School officials in Garrett County have been working with plant officials regarding various training programs since the construction of the plant began. Members of Bausch & Lomb serve on vocational education advisory committees. A community college is currently under construction and will soon assume its share of the educational responsibilities of the area. Occupational education will be among the first programs offered by this post-secondary institution.

Instructional Programs - Emerging

We have already alluded to the types and extent of vocational-technical programs offered on the secondary, post-secondary, and adult

levels, so this segment of the report will expand on the present and proposed status of prevocational programs. While the vocational education community attempts to fill needs at upper levels of the educational spectrum, a few (too few, in fact) school systems are forging ahead in the area of prevocational education. This may be defined as a program to stimulate career awareness in the student before he selects an occupational curriculum that prepares him to enter the world of work.

Administrators have, for the past few years, found themselves intensely involved in program expansion - at all levels. Prevocational programs are just beginning to emerge sporadically at the intermediate level. They usually cover only one or two career clusters. Examples of common-core courses through which prevocational concepts can be explored with a high degree of "hands on" experience are agriculture, home economics, business education, and industrial arts. Some prevocational experiences are directed toward a specific target group - the handicapped.

Prevocational programs exist, for example, at Pickens Tech, in the health and agricultural areas. The agricultural program includes projects on the farm, such as working with cattle, operating and maintaining appropriate machinery and tools. In the health program, students gain practical experience in preparing menus and in performing bed care, temperature checks, role playing, and through visits to the local hospital and nursing homes. An effort is made to introduce students to simulated or direct work experience which goes beyond such stereotyped approaches as printed materials and audio-visuals. This simulated and direct work experience can be performed either within the school or outside the school, and may also be provided at times other than during school hours. Every attempt is made to insure that the experience is relevant.

An example of special prevocational and exploratory education for the disadvantaged can be found at the Allegany AVTS at Cumberland. Activities for this group are determined by a sophisticated educational technique. The best way to evaluate a vocational program is to observe its graduates doing the work for which they were trained. While this method is the most accurate, it is not the most economical or practical. There are limitations on time and staff which hinder exposure and exploration of a variety of jobs. The procedures of vocational evaluation as established by the Allegany center allow exposure and exploration of the world of work but in a capsule form. Using the techniques of psychrometrics, work samples, and simulated working conditions, the students' assets and liabilities to perform within a wide spectrum of jobs can be observed and evaluated.

Vocational evaluation is practiced in a variety of ways. Procedures are developed, adopted, and modified to meet the needs of the disadvantaged or handicapped person being served. Other factors considered in vocational evaluation are the local employment opportunities, the experience of the instructor, and the budget of the department.

The evaluation area allows for approximately 80 square feet per student. The area is flexible, with abundant work samples and good equipment that are stored out of the way when not in use. This approach promises maximum flexibility of the usable space. Psychometrics are useful in compiling profiles of the individual's abilities. The evaluation instruments provide appraisals in the following areas:

Interest	Psychomotor Skills
Intelligence	Aptitudes
Academic Ability	Attitudes
Personality	

Once the initial evaluation is completed, appropriate work samples are adopted from local employment opportunities to give realistic experiences to the students. One purpose of this experience is to modify work habits and attitudes as preparation toward entering a program of training for an occupation.

A similar approach to aiding the disadvantaged and handicapped is employed by a Garrett County, Md. program which serves 841 students. While Allegany County houses its program in the vocational center, neighboring Garrett County operates its program from mobile facilities.

No matter what transpires within an educational system or how sophisticated it may be, the action within the program focuses upon the teacher and his or her students. In vocational education, success of this action is determined by how well the former can prepare the latter to obtain and hold a job. It has been demonstrated repeatedly within the Appalachian Region that once the students enter a vocational education program, most of them experience success of some kind.

Assuming the teacher is proficient in his subject matter and has the ability to teach others his skills, his total efforts are enhanced and supplemented by an assortment of ancillary or supporting services. All of the schools visited evidenced different aspects of supporting services - some were quite well developed, while others were recently initiated or in the planning stages.

Resource Centers

If schools did not have a library or resource center equipped with the latest in multi-media devices, the labs and shops within the school at least had sufficient documents, periodicals, texts, and visual aids to support the theoretical aspects of the respective courses. While these items seem adequate and do aid the instructor, this fragmented system lacks the professional management of resource center personnel. Too often the instructor becomes bogged down with the detail work necessary to his job and loses the perspective inherent in the resource center concept. Many of the schools have centers, but most of them are in need of expansion. The funds thus far invested in them were simply not enough

to do the job that needs to be done. While many of the schools need to do more in this area, one of the finest examples of an operating resource center exists in Doyle High School, Knoxville, Tenn.

As part of a comprehensive high school, this established educational media center serves both academic and vocational students. Key factors for the success of this program are the attitude and service on the part of the media generalist and the staff that encourage use of multi-media by the students and faculty. If the administration and faculty are made aware of the media center's function and potential, the students will receive direct benefit from the center's services. A good balance of materials exists for both vocational and academic students. The suite of rooms housing the various aspects of the media program is attractive, serviceable, and conducive to both group and individual learning experiences. It is one of the outstanding facilities within the region.

Guidance

The extent of guidance services provided varied greatly among the institutions visited. Programs were usually based on good guidance principles, but were curtailed or abbreviated, depending upon the local philosophy and the availability of funds.

A few schools with excellent vocational programs have supportive guidance services in various developmental stages. While plans are unfolding as resources permit, the major burden of providing guidance services to students is placed on the shoulders of teachers and administrators. These people should be intricately involved in guidance activities, but the job is much too important to leave solely to the discretion of teachers and administrators. Their major function is to teach and administer; consequently, the amount of time they may devote to the area of guidance is questionable. With respect to their primary duties, their input into the guidance function is important but should be supplementary to an organized program offering the many facets of student personnel services; namely, testing, recruitment, counseling, record keeping, placement, and followup. The following recruitment techniques have been found in use in various schools:

1. Career development programs at 8th and 9th grade levels
2. Distribution of appropriate literature
3. Field trips to the vocational school
4. Development and use of visual aids about the vocational school
5. Open house for current and prospective students
6. Staff visits to feeder schools
7. Use of youth club members
8. Hiring of a recruitment specialist
9. Utilization of news media for spot announcements
10. Use of personal letters to potential students (including returning veterans)

While these recruitment procedures and subsequent variations are used throughout the region, the most effective technique is word of mouth endorsement from vocational school students or graduates to prospective students. Vocational students are completely honest in their appraisal of programs and teachers. They will certainly spread the word if they are personally getting benefit from courses. Also, they will let you know if the program is sub-standard.

After a student decides to attend or enroll in a vocational curriculum, a battery of tests is administered which helps counselors determine interests, aptitudes, and capabilities and provides a basis for further counseling. All but one of the 26 schools in our sample reported that testing and followup counseling occurred. The one school did not yet have a counselor or an organized guidance program. In some cases, initial testing and followup counseling occur at the home high school.

Of all the guidance functions, placement and followup appear to be the two most neglected. Schools that are gearing up to provide service in these areas are in need of organization. Of the 26 schools examined, less than six provided evidence of a well-organized, all-around guidance program. An example of one of the better programs is currently in operation in Scott County.

Scott County Vocational Center is a small school with a day enrollment of 235 high school students bussed in from their home high schools and 142 adults attending evening classes. The 11 instructors and one administrator are cooperating very closely with the guidance coordinator. Under the direction of the counselor, the faculty assists in nearly all phases of guidance work, but only as they complement their respective courses. The guidance counselor coordinates the teachers' efforts to fit a master plan specifically designed to aid the students. In addition to requiring the concerted efforts of all staff members, industrial personnel are providing input into the program through impartial assessment of student potentialities in relation to their vocational choice and to provide opportunities for these students to be satisfactorily placed in industry. Staff members and industrial personnel meet frequently to discuss individual student attitudes and problems involved in self-understanding and development. This effort is helping students to gain a better understanding of all the factors which must be considered in analyzing their strengths and weaknesses in relation to their probable success and happiness in the vocation of their choice. To aid the faculty members in carrying out their portion of the guidance functions at this school, the counselor has prepared a guide: "Job Preparation and Placement Program." It includes an introduction, objectives, a general outline, and the following instructional topics to be covered through group sessions, tours, speakers, and career assemblies:

- Understanding others
- Understanding self
- The changing world of work
- Sources of occupational information

- Surveying the occupational areas
- Study of particular occupations
- Obtaining and holding the first job
- Job preparation review

This document also includes guidelines for the job interview, evaluation, placement, and followup. The results thus far are excellent - everyone benefits under this organized structure. Statistics are immediately available as to where graduates are working and how much they are making; comments by the employer on each student are included. Feedback of this nature is being used to correct discrepancies in the educational system. Most of the schools run a followup study at 1 year and plan to do a second study 5 years after each graduating class. Scott County Vocational Center has one of the finest all-round guidance programs. Other schools, in developing their overall program for guidance, have recently made major thrusts toward orientation at the junior high school and elementary levels.

One example of such a program is being developed at Pickens Tech. It proposes to have a minimum of four meetings per year with all seventh grade students. The counselors from the high schools and the AVTS will provide these students with the experience and knowledge which will form the basis upon which a more appropriate educational and occupational choice can be made at future major decision points. Followup counseling will be continued by a new counselor assigned to work primarily with grades 8 and 9.

Garrett County Board of Education has also hired two additional guidance counselors to function at the elementary school level. A major objective of the counselors is to provide services to these schools that will be coordinated with the vocational guidance program in each of the two comprehensive high schools. Incidentally, the high schools in this area are providing counseling services during the summer months. The counselors in this system, collectively, will identify and serve the disadvantaged and the handicapped. For those identified within these target groups and about to complete training, counselors at the high school level will contact and cooperate with outside agencies in an effort to seek suitable employment. Special followup studies will be conducted for these groups also.

The aggressive approach to providing for educational needs is further exemplified within the Garrett County school system. A committee of guidance counselors and teachers surveyed the availability of jobs, interviewed a wide variety of people who told about their work and the reasons they chose their career, and took a series of field trips to local industries to further determine how the educational community can assist students to relate their views of their aptitudes, abilities, and interests to occupations. The outcome of this study was the development of a unit on "Educational and Career Opportunities" that is currently being implemented at the ninth grade level. Presentation and

implementation of this unit is accomplished very effectively through the team teaching method involving both teaching and guidance personnel.

This progressive organization of guidance personnel recently attended an inservice workshop for the development of a program for restructuring and organizing guidance resources in existing secondary schools in Garrett County. The workshop, appropriately entitled "Background Data for Progress," provided some of the guidelines for re-directing the guidance effort in this county.

These are but representative examples of the best that is being offered in the way of guidance services to students in vocational schools. Additional effort is needed to bring good guidance services to all the schools within Appalachia.

Youth Organizations

Nationally sponsored youth organizations seem well established and flourishing in Appalachian vocational schools. Only four of 26 schools reporting indicated they have no youth clubs as yet. One school reports that an organization is now in the developmental stage and will be operational in the near future. The remainder of the reporting schools have at least one organization and some have three or four in operation at the present time. One school, for example, sponsored four nationally known youth clubs plus nine others with various interests of local origin.

The following nationally sponsored organizations existed at the schools reporting:

- Distributive Education Clubs of America (DECA)
- Future Farmers of America (FFA)
- Future Business Leaders of America (FBLA)
- Office Education Association (OEA)
- Vocational Industrial Clubs of America (VICA)
- Future Homemakers of America (FHA)

The club program complements, supplements, and strengthens the instructional program. Combined with classroom instruction and on-the-job training, the program gives greater scope and depth to the total instructional program. Success in the student's chosen field is dependent on attitudes that lend themselves to development within an educationally centered club program.

Classroom and laboratory instruction are concerned largely with a body of knowledge which applies to the immediate career objective of each of the students enrolled. Experience on the job provides a means of trying out the concepts learned in the classroom. Co-operative education arrangements further provide an opportunity to develop needed skills through practice under competent supervision in a realistic situation. The club program serves to round out the classroom instruction and the

job instruction by providing a controlled method for student-centered participation in activities which are of particular interest to the member of the club.

Advisory Committees

Another important segment of the many faceted approach toward the economic uplift within the Appalachian Region is the contribution of advisory and craft committees whose members are selected from the community to advise on the direction of the local area vocational school. In addition to filling the need for which they were assembled, these committees also promote good will and provide a liaison between the school community and the private and business sectors of the community.

All schools visited reported that general and advisory committees had been organized and were in operation at present. General advisory committee members represent all walks of life. Their occupations are too numerous to mention here; they range from bank president to housewife, car dealer to cosmetologist, retail merchant to farmer. The craft committee membership is more narrow in scope, containing only those people whose background can contribute to a specific occupational area. These committees report on the manpower needs of the community, advise on curriculum content, and recommend particular equipment and shop layouts. Some of the more aggressive committees aid also in the recruitment of students for the school and help with placement of students at the completion of their schooling. A few committees advise on the procurement and selection of teaching personnel.

Facilities and Equipment

Vocational-technical facilities constructed in the past 5 years are exceptionally attractive, modern structures--a factor which probably contributes to the increased enrollment of students. The facilities are well lighted and contain excellent environmental control systems. Excessive sound is controlled in many areas of the schools through the use of accoustical ceilings and carpeted floors. Flexibility is achieved through the use of demountable partitions or use of open space concept. Seamless epoxy floor coverings or tiles are used in many of the laboratories, rest rooms, and kitchen areas. Most shop areas have treated concrete floors. While all schools do not possess all of the above described features, most exist in some degree or another within each school. Collectively, the above features provide for ease of maintenance. Landscaping, walkways, lighting, and parking areas add finishing touches to the completed plant.

The facilities thus far constructed seem adequate to meet the objectives of the program, but the demand for new and expanded courses will necessitate additional construction almost immediately. Administrators and teachers are already adjusting time schedules in order to accommodate more students within the existing facilities. Georgia, for example,

is experimenting with operating several pilot programs of vocational education curricula in 2-hour blocks of five each day. Preliminary evaluation of the program, so far, shows that students seem to be getting as much training and knowledge out of the program as students from programs utilizing the more traditional 3-hour period per day. Success of the new time sequence may be attributed to efficiency in curriculum design and improved teaching methods. The new time schedule allows a curriculum to accommodate one-third more students per day than by traditional methods. In order to meet the vocational education needs of the Appalachian population, teaching methods may need to be improved, time frames adjusted, as well as additional facilities constructed.

Operating Costs

As vocational education programs expand throughout the Appalachian Region, the over-all operating cost of these facilities is creating a problem for administrators. One of the major requirements for states to meet in order to acquire ARC Federal funds for school construction is to assure the U.S. Commissioner of Education that operating funds will be available. While intentions of the state directors are good, factors of inflation, expansion of vocational education programs in other parts of the state, and additional needs for administrative personnel have put such a drain on available funds that it is virtually impossible to provide operating funds for needed schools of the future.

Another factor is that the state directors cannot accurately estimate the amount of Federal funds that will be available from year to year. Certain legislative requirements that 40 percent of the Federal allotment for vocational education be set aside for post-secondary, handicapped, and disadvantaged students, put additional limitations on the distribution of funds. It has already been established that ARC funds can only be used currently for construction and initial equipment purposes.

Varying amounts of operating costs were reported by administrators of the schools visited. Typical examples include costs for administrative purposes, instruction (teacher salaries), evening school operation, instructional materials, inservice training, health services, pupil personnel services, transportation (buses), plant operation and maintenance, insurance costs, and salaries for supportive personnel (secretaries and custodians). Costs per year for the above services, of course, vary depending on the size of the school. Two examples, however, are Centre County AVTS and Columbia Montour Arts, both in Pennsylvania, which list yearly operational costs of $471,000 and $551,000, respectively. Local, state, and Federal funds are straining to carry the load today, and increased costs and expansion necessary to meet tomorrow's needs will overload the combined fiscal capacity.

Suggestions for Improvement

To continue the Appalachian area vocational school construction at its present pace to eventually provide for 50 percent of the secondary school

youth, local, state, and Federal efforts in funding and in providing technical assistance to local education agencies should:

- Provide for expansion of prevocational and exploratory education programs.

- Provide data to facility planners with respect to obtaining maximum utilization of existing space, remodeling techniques, and developing new facilities in light of recent findings and trends in school construction and curriculum development.

- Provide for expansion and/or initiation of guidance programs to coordinate career education objectives of students in elementary through post-secondary programs.

- Provide for expansion and/or initiation of resource and multi-media centers.

- Provide for inservice and preservice programs for administrators, teachers, and prospective teachers, to insure maximum efficiency in the classroom.

- Consider Federal financial assistance for the operation and maintenance of on-going programs, including additional cost of administration at the state level for ARC programs.

- Provide vocational education administrators with up-to-date employment trends.

Much work is needed in the above areas, but ironically some of the finest programs can be found right in the Appalachian Region. The job of selecting the best from these programs and disseminating the data and techniques to other educators remains to be done. The regional workshop or conference is an effective method of disseminating ideas and information to people. According to many conversations with interested teachers and officials, conferences in the following areas would be very welcome:

- Facilities, equipment, time and space utilization
- Guidance
- Multi-media and resource centers
- Curriculum development, with emphasis on new and emerging occupations, prevocational and exploratory education

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